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enhanced on STN  
NEWS 4 JUN 26 NUTRACEUT and PHARMAML no longer updated  
NEWS 5 JUN 29 IMSCOPROFILE now reloaded monthly  
NEWS 6 JUN 29 EFFULL adds Simultaneous Left and Right Truncation  
(SLART) to AB, MCLM, and TI fields  
NEWS 7 JUL 09 PATDPAFULL adds Simultaneous Left and Right  
Truncation (SLART) to AB, CLM, MCLM, and TI fields  
NEWS 8 JUL 14 USGENE enhances coverage of patent sequence location  
(PSL) data  
NEWS 9 JUL 27 CA/Caplus enhanced with new citing references  
NEWS 10 JUL 16 GBFULL adds patent backfile data to 1855  
NEWS 11 JUL 21 USGENE adds bibliographic and sequence information  
NEWS 12 JUL 28 EFFULL adds first-page images and applicant-cited  
references  
NEWS 13 JUL 28 INPADOCDB and INPAFAMDB add Russian legal status data  
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\*  
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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 14:23:18 ON 10 AUG 2009

=> file casreact		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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FULL ESTIMATED COST	0.22	0.22

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FILE CONTENT:1840 - 9 Aug 2009 VOL 151 ISS 7

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L1        STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1        STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:24:24 FILE 'CASREACT'

SCREENING COMPLETE -        268 REACTIONS TO VERIFY FROM        23 DOCUMENTS

100.0% DONE        268 VERIFIED        0 HIT RXNS        0 DOCS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*

BATCH    \*\*COMPLETE\*\*

PROJECTED VERIFICATIONS:        4378 TO        6342

PROJECTED ANSWERS:        0 TO        0

L2        0 SEA SSS SAM L1 (        0 REACTIONS)

=> s l1 full

FULL SEARCH INITIATED 14:24:29 FILE 'CASREACT'  
SCREENING COMPLETE - 5406 REACTIONS TO VERIFY FROM 592 DOCUMENTS  
100.0% DONE 5406 VERIFIED 13 HIT RXNS 12 DOCS  
SEARCH TIME: 00.00.05

L3 12 SEA SSS FUL L1 ( 13 REACTIONS)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	123.13	123.35

FILE 'CAPLUS' ENTERED AT 14:24:39 ON 10 AUG 2009  
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FILE COVERS 1907 - 10 Aug 2009 VOL 151 ISS 7  
FILE LAST UPDATED: 9 Aug 2009 (20090809/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/Caplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

=> s 13

L4 12 L3

=> s 13 not py > 2005

12 L3

5386437 PY > 2005

L5 3 L3 NOT PY > 2005

=> d 15 ibib abs 1-

YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:586823 CAPLUS

DOCUMENT NUMBER: 143:76947  
 TITLE: Enzymic manufacture of monomethacrylic acid esters  
 INVENTOR(S): Sakurai, Yoko  
 PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005176802	A	20050707	JP 2003-426355	20031224
PRIORITY APPLN. INFO.:			JP 2003-426355	20031224

OTHER SOURCE(S): CASREACT 143:76947

AB The monomethacrylic acid esters are manufactured with (immobilized) lipase from (meth)acrylic acid, active hydrogen-containing compds., organic solvents, etc., in the presence of 0.01-0.5 weight% water. Adsorbents such as silica, activated clay, activated charcoal, zeolite, ion exchanger, etc., are also used in the enzymic reaction. The method is fast and gives low loss of the enzymic activity. It gives selectively monomethacrylic acid esters. Manufacture of hydroxyethylacrylate with lipase was shown.

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:353049 CAPLUS  
 DOCUMENT NUMBER: 140:374007  
 TITLE: Enzyme-catalyzed esterification of pendant carboxylic acid groups of polymers  
 INVENTOR(S): Gross, Richard A.; Sahoo, Bishwabhusan  
 PATENT ASSIGNEE(S): Polytechnic University, USA  
 SOURCE: U.S. Pat. Appl. Publ., 22 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040082023	A1	20040429	US 2002-278320	20021023
US 6924129	B2	20050802		
WO 2004037980	A2	20040506	WO 2003-US33292	20031021
WO 2004037980	A3	20040826		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003301584	A1	20040513	AU 2003-301584	20031021
PRIORITY APPLN. INFO.:			US 2002-278320	A 20021023
			WO 2003-US33292	W 20031021

OTHER SOURCE(S): CASREACT 140:374007

AB A method for enzymically synthesizing a polymer by combining a preselected quantity of an enzyme, a first reactant selected from polymers with at least one carboxylic acid pendant group, a second reactant selected from alcs., i.e., polyols, in a reaction vessel; heating the reaction vessel to a preselected temperature; and maintaining the reaction vessel at the

preselected temperature for a preselected time with mixing, wherein an esterification reaction results at at least one carboxylic acid pendant group of the polymer with one hydroxyl group from the polyol and results in a modified polymer. Thus, polyacrylic acid was esterified with ethylene glycol using lipase.

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:457002 CAPLUS  
DOCUMENT NUMBER: 121:57002  
ORIGINAL REFERENCE NO.: 121:10269a,10272a  
TITLE: New route for preparation of esters  
INVENTOR(S): Costabile, Jose Antonio; Campos, Jairo Aguiar De  
PATENT ASSIGNEE(S): Quimica Nacional Quiminasa S/A, Brazil  
SOURCE: Braz. Pedido PI, 14 pp.  
CODEN: BPXXDX  
DOCUMENT TYPE: Patent  
LANGUAGE: Portuguese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 9302152	A	19931116	BR 1993-2152	19930617

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 121:57002; MARPAT 121:57002

AB The title route involves a catalytic (sic) process involving reaction of metal salts (Li, Na, K, Mg, Ca, Ba, Mn, Ni, Mo, Zn, Cu, Ag, Pt, or Au) of organic acids with inorg. esters. For example, reaction of stearyl borates, e.g. B(OC18H37)3 or NaOB(OC18H37)2, with stearic acid salts (Na, K, Ca, Mg, Zn, Li, etc.) in refluxing solvents (e.g., PhMe, xylene, H2O, acetates, n-hexane) gives stearyl stearate with approx. 95% conversion in 2 h. Similarly, reaction of sucrose with 1 mol equiv metaboric acid at approx. 100° gave the metaborate ester, with reacted with Na linoleate in aqueous alc. solution at approx. 70° to give sucrose octalinoate in > 90% conversion. Addnl. preps. include glycerin acrylate and methacrylate, and other sucrose esters.

=> s 15 not 14

L6 0 L5 NOT L4

=> s 14 not 15

L7 9 L4 NOT L5

=> d 17 ibib abs 1-

YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):y

L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:427131 CAPLUS  
DOCUMENT NUMBER: 150:399069  
TITLE: Process for fabrication of acrolein from glycerol  
INVENTOR(S): Dubois, Jean-Luc  
PATENT ASSIGNEE(S): Arkema France, Fr.  
SOURCE: PCT Int. Appl., 25pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009044081	A1	20090409	WO 2008-FR51620	20080911

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,  
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,  
 FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,  
 KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,  
 ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,  
 PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,  
 IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,  
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

FR 2921361 A1 20090327 FR 2007-57708 20070920

PRIORITY APPLN. INFO.: FR 2007-57708 A 20070920

OTHER SOURCE(S): CASREACT 150:399069

AB The invention has as an aim a method of preparation of acrolein, useful in the manufacture of acrylic acid, by dehydrogenation of glycerol in the presence of a catalytic system based on oxides of P, Fe, and  $\geq 1$  other element chosen among alkali metals, alkaline-earth metals, Al, Si, B, Co, Cr, Ni, V, Zn, Zr, Sn, Sb, Ag, Cu, Nb, Mo, Y, Mn, Pt, Rh, rare earths, La, Ce, and Sm. The process is implemented preferably in phase gas in the presence of oxygen starting with aqueous glycerol solns. The process according to the invention makes it possible to obtain acrolein in increased selectivity.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2009:426346 CAPLUS

DOCUMENT NUMBER: 150:399067

TITLE: Reactive vaporization of glycerol to purify and manufacture acrolein and acrylic acid

INVENTOR(S): Dubois, Jean-Luc; Patience, Gregory

PATENT ASSIGNEE(S): Arkema France, Fr.

SOURCE: PCT Int. Appl., 33pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009044051	A1	20090409	WO 2008-FR51585	20080905
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

FR 2920767 A1 20090313 FR 2007-57396 20070906

PRIORITY APPLN. INFO.: FR 2007-57396 A 20070906

OTHER SOURCE(S): CASREACT 150:399067

AB The invention has as an aim a process of reactive vaporization of aqueous glycerol solns. in a fluidized bed containing a solid catalyst at 180-400°. The process of the invention simultaneously makes it possible to vaporize an aqueous glycerol solution, to eliminate the impurities present in this solution or generated during evaporation, and to carry out the

reaction of dehydrogenation to acrolein and/or oxydehydrogenation to acrylic acid.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:70968 CAPLUS

DOCUMENT NUMBER: 148:145188

TITLE: Membrane catalyst for synthesizing acrylic acid from glycerol

INVENTOR(S): Dubois, Jean-Luc

PATENT ASSIGNEE(S): Arkema France, Fr.

SOURCE: PCT Int. Appl., 21pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008007002	A2	20080117	WO 2007-FR51596	20070705
WO 2008007002	A3	20080228		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
FR 2903620	A1	20080118	FR 2006-52960	20060713
FR 2903620	B1	20090220		

PRIORITY APPLN. INFO.: FR 2006-52960 A 20060713

OTHER SOURCE(S): CASREACT 148:145188

AB The title membrane catalyst comprises a first layer composed of a phase capable of selectively converting acrolein into acrylic acid, and a second layer B formed on said first layer A, composed of an acid phase having a Hammett acidity H<sub>0</sub> of less than +2, capable of selectively performing the glycerol into acrolein dehydration reaction. The layer A is formed on an inert support and contains ≥1 element selected from Mo, V, W, Re, Cr, Mn, Fe, Co, Ni, Cu, Zn, Sn, Te, Sb, Pt, Pd, Ru, and Rh in the form of metals, oxides, sulfates, or phosphates. Layer B is an acid phase selected from zeolites, sulfonated fluoropolymers, chlorinated alumina, phospho- or silicotungstic acids or salts, or metal oxides such as Ta<sub>2</sub>O<sub>5</sub>, Nb<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, ZrO<sub>2</sub>, SnO<sub>2</sub> silica, or SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> impregnated by acids such as BO<sub>3</sub>, SO<sub>3</sub>, WO<sub>3</sub>, PO<sub>4</sub>, SiO<sub>2</sub>, or MoO<sub>3</sub>.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:873658 CAPLUS

DOCUMENT NUMBER: 147:214004

TITLE: Process for preparation of acrylic acid

INVENTOR(S): Dubois, Jean-Luc

PATENT ASSIGNEE(S): Arkema, Fr.

SOURCE: Fr. Demande, 16pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2897059	A1	20070810	FR 2006-1061	20060207
FR 2897059	B1	20080418		
WO 2007090991	A2	20070816	WO 2007-FR50758	20070206
WO 2007090991	A3	20071206		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1981835	A2	20081022	EP 2007-731584	20070206
EP 1981835	B1	20090506		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR AT 430724 T 20090515 AT 2007-731584 20070206 JP 2009524630 T 20090702 JP 2008-551845 20070206 IN 2008DN06649 A 20081024 IN 2008-DN6649 20080731 US 20090018362 A1 20090115 US 2008-278016 20080801 MX 2008010086 A 20080818 MX 2008-10086 20080806 CN 101400639 A 20090401 CN 2007-80004590 20080806 KR 2008092429 A 20081015 KR 2008-719397 20080807 PRIORITY APPLN. INFO.: FR 2006-1061 A 20060207 WO 2007-FR50758 W 20070206				

OTHER SOURCE(S): CASREACT 147:214004

AB The process includes steps of: (1) oxidation of propylene to acrolein, and (2) oxidation of acrolein to acrylic acid where glycerol is dehydrated to propylene in the presence of an oxidation gas resulting from the step (1) for improving productivity. The process of the invention makes it possible to partly use a renewable raw material.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2007:769785 CAPLUS

DOCUMENT NUMBER: 148:80954

TITLE: Studies on the use of glycerol in organic synthesis.

AUTHOR(S): Part 1. Conversion of glycerol to acrolein

Kijenski, Jacek; Migdal, Antoni; Tecza, Witold;

Smigiera, Ewa; Osawaru, Osazuwa; Mementusiak, Monika

CORPORATE SOURCE: Zaklad Proekol. Modernizacji Technol., Inst. Chem.

Przem. im. Ignacego Moscickiego, Warsaw, Pol.

SOURCE: Przemysl Chemiczny (2007), 86(4), 278-281

CODEN: PRCHAB; ISSN: 0033-2496

PUBLISHER: Wydawnictwo SIGMA-NOT

DOCUMENT TYPE: Journal

LANGUAGE: Polish

OTHER SOURCE(S): CASREACT 148:80954

AB Glycerol (concentrate 40-90%) was dehydrated to acrolein and allyl alc. at 280 to 400°C in laboratory batch reactor on a solid catalyst. The highest conversion degrees were achieved when SiO2-Al2O3 and H2SO4/SiO2-Al2O3 catalysts were used (0.30 and 0.29 mol/mol to acrolein and 0.282 to 0.220



mol/mol to allyl alc. at 300°C, resp.). The mixture of acrolein and allyl alc. was directly oxidized to acrylic acid at 200-450°C on oxide Mo-V catalyst.

L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:1147117 CAPLUS  
 DOCUMENT NUMBER: 145:471154  
 TITLE: Catalytic oxidative dehydration method for producing acrylic acid from glycerol  
 INVENTOR(S): Dubois, Jean-Luc; Duquenne, Christophe; Hoelderich, Wolfgang  
 PATENT ASSIGNEE(S): Arkema France, Fr.  
 SOURCE: PCT Int. Appl., 28pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006114506	A1	20061102	WO 2006-FR907	20060424
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
FR 2884817	A1	20061027	FR 2005-4111	20050425
FR 2884817	B1	20070622		
FR 2884818	A1	20061027	FR 2006-183	20060110
FR 2884818	B1	20070713		
EP 1874720	A1	20080109	EP 2006-743726	20060424
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008538781	T	20081106	JP 2008-508255	20060424
IN 2007DN07878	A	20071109	IN 2007-DN7878	20071012
US 20080183013	A1	20080731	US 2007-912353	20071023
KR 2007116655	A	20071210	KR 2007-724445	20071024
CN 101248033	A	20080820	CN 2006-80022928	20071225
PRIORITY APPLN. INFO.:			FR 2005-4111	A 20050425
			US 2005-689423P	P 20050610
			FR 2006-183	A 20060110
			WO 2006-FR907	W 20060424

OTHER SOURCE(S): CASREACT 145:471154  
 AB A method for producing acrylic acid in one step by a catalytic oxydehydration reaction of glycerol in the presence of mol. oxygen is described. The reaction is preferably carried out in the gaseous phase in the presence of a suitable catalyst.  
 OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)  
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:1093270 CAPLUS  
 DOCUMENT NUMBER: 145:417186

TITLE: Enzymatic conversion of epoxides to diols by epoxide hydrolase  
 INVENTOR(S): Schoening, Kai-Uwe  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: PCT Int. Appl., 28pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006108771	A1	20061019	WO 2006-EP61260	20060403
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
CA 2601994	A1	20061019	CA 2006-2601994	20060403
EP 1869198	A1	20071226	EP 2006-725506	20060403
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
US 20090061494	A1	20090305	US 2007-887982	20071005
IN 2007CN04488	A	20080125	IN 2007-CN4488	20071010
PRIORITY APPLN. INFO.:			EP 2005-102822	A 20050411
			WO 2006-EP61260	W 20060403

OTHER SOURCE(S): CASREACT 145:417186; MARPAT 145:417186  
 AB A process is provided for the production of diols from epoxides using an epoxide hydrolase. Addnl. provided is a process for producing polymers from the diols produced or for polymerizing the epoxides and hydrolyzing the epoxy ring afterwards. The epoxide hydrolase may be used in a free form or in the form of lyophilized microbial cells.  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2009 ACS on SIN  
 ACCESSION NUMBER: 2006:1005768 CAPLUS  
 DOCUMENT NUMBER: 145:377531  
 TITLE: Preparation of glycerin diesters from ester mixtures by removing monoesters and triesters with specific solvents  
 INVENTOR(S): Takase, Yoyohito; Maki, Keiji  
 PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006257044	A	20060928	JP 2005-79159	20050318
PRIORITY APPLN. INFO.:			JP 2005-79159	20050318
OTHER SOURCE(S):			CASREACT 145:377531	

AB Glycerin diesters are prepared from a solution having pH  $\geq 5$  containing at least glycerin monoesters and the glycerin diesters with a solvent having solubility parameter  $\geq 8.5$  (solvent A) or prepared from a solution having pH  $\geq 5$  containing at least the glycerin diesters and glycerin triesters with a solvent having solubility parameter  $< 8.5$  (solvent B). Alternatively, the glycerin diesters are prepared from a solution having pH  $\geq 5$  containing glycerin monoesters, the glycerin diesters, and glycerin triesters with solvent A and solvent B to sep. the glycerin monoesters and the glycerin triesters, resp. Thus, glycerin was treated with acrylic acid in the presence of methoquinone and H2SO4 at 70° for 5 h, and the reaction mixture was adjusted to pH 8.3, mixed with toluene (solubility parameter 8.93), and separated into an oil phase and an aqueous phase. Toluene was removed from the aqueous phase upon bubbling with air, and the recovered mixture of diacrylate and triacrylate was mixed with hexane (solubility parameter 7.27) and H2O and separated to give 63.2% glycerin diacrylate from the aqueous phase.

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:468024 CAPLUS  
DOCUMENT NUMBER: 141:22300  
TITLE: Enzymatic synthesis of polyol acrylates  
INVENTOR(S): Paulus, Wolfgang; Hauer, Bernhard; Haering, Dietmar; Dietsche, Frank  
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048585	A2	20040610	WO 2003-EP13106	20031121
WO 2004048585	A3	20040805		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2506422	A1	20040610	CA 2003-2506422	20031121
AU 2003288142	A1	20040618	AU 2003-288142	20031121
EP 1565563	A2	20050824	EP 2003-780023	20031121
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006506993	T	20060302	JP 2004-554415	20031121
US 20060030013	A1	20060209	US 2005-535525	20050701
PRIORITY APPLN. INFO.:			DE 2002-10254642	A 20021122
			WO 2003-EP13106	W 20031121

OTHER SOURCE(S): CASREACT 141:22300

AB The invention provides a method for the enzymic synthesis of polyol acrylates, or polymeric polyol acrylates. The invention also provides unique polymers that can be obtained according to this method and to the their use for producing radiation-curable and thermally curable paints.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

